

# United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/830,044	04/23/2004	Yasuhiro Ogata	Q80791	8714
23373 · 75	590 12/15/2006		EXAM	INER
SUGHRUE MION, PLLC			SHEWAREGED, BETELHEM	
2100 PENNSYLVANIA AVENUE, N.W. SUITE 800			ART UNIT	PAPER NUMBER
WASHINGTON, DC 20037		•	1774	
		·	DATE MAILED: 12/15/2006	

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)			
	10/830,044	OGATA ET AL.			
Office Action Summary	Examiner	Art Unit			
	Betelhem Shewareged	1774			
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply					
A SHORTENED STATUTORY PERIOD FOR REPL WHICHEVER IS LONGER, FROM THE MAILING D  - Extensions of time may be available under the provisions of 37 CFR 1.1 after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period  - Failure to reply within the set or extended period for reply will, by statutt Any reply received by the Office later than three months after the mailine earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 136(a). In no event, however, may a reply be timwill apply and will expire SIX (6) MONTHS from a, cause the application to become ABANDONE	J.  lely filed  the mailing date of this communication.  O (35 U.S.C. § 133).			
Status					
<ol> <li>Responsive to communication(s) filed on 21 / 2a)</li> <li>This action is FINAL.</li> <li>Since this application is in condition for alloware closed in accordance with the practice under a condition.</li> </ol>	s action is non-final. ince except for formal matters, pro				
Disposition of Claims	•				
4) ⊠ Claim(s) 1-3, 5, 6 and 8-22 is/are pending in the day of the above claim(s) is/are withdray 5) □ Claim(s) is/are allowed.  6) ⊠ Claim(s) 1-3, 5, 6 and 8-22 is/are rejected.  7) □ Claim(s) is/are objected to.  8) □ Claim(s) are subject to restriction and/or and/o	wn from consideration.				
Application Papers		æ.			
9) The specification is objected to by the Examine 10) The drawing(s) filed on is/are: a) acc Applicant may not request that any objection to the Replacement drawing sheet(s) including the correct 11) The oath or declaration is objected to by the Examine	cepted or b) objected to by the E drawing(s) be held in abeyance. See tion is required if the drawing(s) is obj	e37 CFR 1.85(a). ected to. See 37 CFR 1.121(d).			
Priority under 35 U.S.C. § 119					
12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) All b) Some * c) None of:  1. Certified copies of the priority documents have been received.  2. Certified copies of the priority documents have been received in Application No  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.					
Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)	4)  Interview Summary Paper No(s)/Mail Da 5)  Notice of Informal P				
Paper No(s)/Mail Date 6)  Other:					

Application/Control Number: 10/830,044 Page 2

Art Unit: 1774

#### **DETAILED ACTION**

Applicant's response along with the Request for Continued Examination (RCE) filed on 11/21/2006 has been fully considered. The 35 USC 102 rejection and the 35 USC 103 rejection have been withdrawn in view of Applicant's amendment and comments.

2. Claim 1 is amended, claims 4 and 7 are canceled and claims 1-3, 5, 6 and 8-22 are pending.

## Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
- 4. Claims 1-6, 8, 17 and 20 are rejected under 35 U.S.C. 102(a) as being anticipated by Serizawa et al. (US 2002/0058589 A1).
- 5. Serizawa discloses a recording material comprising a support, a resin layer on the support and a recording layer on the resin layer (abstract). The resin layer comprises a binder such as gelatin and polyvinyl alcohol, and water swellable synthetic mica having an aspect ratio of 100 or more ([0022], [0043] and [0061]-[0065]). The recording layer comprises an inorganic pigment among other components and a binder such as polyvinyl alcohol, cellulose resin and gelatin ([0150]-[0156]). The support comprises a base paper having a basis weight of 100gsm ([0188] and [0277]).

Application/Control Number: 10/830,044 Page 3

Art Unit: 1774

### Claim Rejections - 35 USC § 103

- 6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 7. Claims 1-3, 5, 6 and 8-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Majumdar et al. (US 6,475,695 B2) in further view of Ohbayashi et al. (US 6,492,005 B1) and Serizawa et al. (US 2002/0058589 A1).
- 8. Majumdar discloses an imaging member comprising an image layer and a support (abstract). The support comprises a paper sheet and a layer (also referred as "nanocomposite material"), wherein the layer comprises an inorganic particle such as mica having the claimed aspect ratio, and a resin such as polyvinyl alcohol. The layer further comprises optional components such as titanium oxide, zinc oxide, talc, calcium carbonate, zinc stearate and fatty amides. The layer may be applied on both sides of the support. (See col. 3, line 65 thru col. 4, line 52; col. 7, line 19 thru col. 8, line 26; col. 11, lines 1-11 and 64; and claims 1, 12 and 19).
- 9. Majumdar does not disclose image layer as claimed.
- 10. Ohbayashi teaches a recording sheet comprising a support and an ink absorptive layer (abstract). The ink absorptive layer comprises a resin such as polyvinyl alcohol, gelatin and cellulose and a hardener such as boron compound (col. 13, line 61 and col. 15, line 52).

Application/Control Number: 10/830,044 Page 4

Art Unit: 1774

11. Majumdar and Ohbayashi are analogous art because they are from the same field of endeavor that is the recording sheet art. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the ink absorptive layer of Ohbayashi with the invention of Majumdar so as to provide a recording sheet having enhanced image quality, drying property and water resistance property.

- 12. In Majumdar, the layer between the support and the image layer does not comprise water swellable synthetic mica as claimed.
- 13. Serizawa teaches a recording material comprising a support, a resin layer on the support and a recording layer on the resin layer (abstract). The resin layer comprises a binder such as gelatin and polyvinyl alcohol, and water swellable synthetic mica having an aspect ratio of 100 or more ([0022], [0043] and [0061]-[0065]).
- 14. Majumdar and Serizawa are analogous art because they are from the same field of endeavor that is the recording medium art. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the resin layer of Serizawa with the invention of Majumdar in order to prevent printed image defects (see [0024] of Serizawa).

## Response to Arguments

15. Applicant's arguments with respect to claims 1-3, 5, 6 and 8-22 have been considered but are most in view of the new ground(s) of rejection.

Art Unit: 1774

#### Conclusion

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Betelhem Shewareged whose telephone number is 571-272-1529. The examiner can normally be reached on Mon.-Fri. 8:00AM-4:30PM.

- 17. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.
- 18. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BS

December 9, 2006.

BETELHEN SHEWAREGED